

What is claimed is:

1. A cerium-zirconium composite metal oxide, characterized in that the total mole number of Ce and Zr is at least 85% based on the total mole number of metal
5 in the composite metal oxide, a molar ratio Ce/Zr is within a range from 1/9 to 9/1, and an isoelectric point of the composite metal oxide is more than 3.5.

2. The cerium-zirconium composite metal oxide according to claim 1, wherein the molar ratio Ce/Zr is
10 within a range from 3/7 to 7/3 and the isoelectric point is within a range from 3.8 to 5.0.

3. The cerium-zirconium composite metal oxide according to claim 1 or 2, which contains rare earth metal (excluding Ce) in a concentration of less than 15%
15 by mole based on the total mole number of metal in the composite metal oxide.

4. A cerium-zirconium composite metal oxide, characterized in that the total mole number of Ce and Zr is at least 85% based on the total mole number of metal
20 in the composite metal oxide and CeO_2 forms a core surrounded by ZrO_2 .

5. The cerium-zirconium composite metal oxide according to claim 4, wherein the CeO_2 core has a diameter within a range from 5 to 20 nm.

25 6. An exhaust gas purifying catalyst comprising the cerium-zirconium composite metal oxide of any one of claims 1 to 5 and a noble metal supported on the cerium-zirconium composite metal oxide.

7. A method for synthesizing the cerium-zirconium
30 composite metal oxide of any one of claims 1 to 4, which comprises mixing a ceria sol and a zirconium compound solution or a zirconia sol to prepare a suspension, and drying and firing the mixture.